

ABSTRACT

A panel antenna having a variable phase shifter module with at least one main-PCB having an input trace coupled to a wiper junction. An arcuate trace on the main-PCB extending between a first output trace and a second output trace, the arcuate trace having an arc center proximate the wiper junction. A wiper-PCB having a linking trace thereon; the wiper-PCB rotatably coupled to the main-PCB proximate the wiper junction with the linking trace facing the first main-PCB. Because the linking trace faces the main-PCB, the wiper-PCB may be formed from inexpensive and structurally resilient substrate material. The linking trace coupling the wiper junction with the arcuate trace. Multiple arcuate traces may be linked to further output traces to add additional outputs, each having variable phase shift between them, depending upon the position of the wiper-PCB. Multiple main-PCBs may be stacked upon each other and the wiper-PCBs of each controlled by a common linkage.